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EXAMINER

WONG, LESLIE

ART UNIT	PAPER NUMBER
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2167

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,078

Applicant(s)

KELLEY, J. ROGER

Examiner

Leslie Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Receipt of Applicant's Response to the requirement under 37 CFR 1.105, filed 15 October 2004, is acknowledged.

Drawings

2. The drawings were received on 27 February 2004. These drawings are acceptable.

Allowable Subject Matter

3. The indicated allowability of claims 18, 21, and 22 are withdrawn in view of the Applicant's Response the requirement under 37 CFR 1.105. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5-8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by **Dominguez et al.** (U.S. Patent 5,668,735).

Regarding claim 1, **Dominguez et al.** teaches a method for collecting, assimilating and utilizing data from a variety of sources for determining the regulatory

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requirements and for generating the related compliance reports for an industry, the method comprising the steps of:

- a). collecting external data required for compliance requirements of a compliance model (col. 2, lines 25-38; col. 22, lines 22-33);
- b). collecting data from a user (col. 23, lines 16-19);
- c). assimilating the external data and the user data in a processor to determine compliance by the user (col. 23, lines 45-55);
- d). automatically generating a report unique to the user data containing required compliance information (col. 23, lines 19-24).

Regarding claim 2, **Dominguez et al.** further teaches wherein the external data is public data (col. 5, lines 36-46).

Regarding claim 3, **Dominguez et al.** further teaches wherein the compliance model is a government agency compliance requirement (col. 1, lines 36-53).

Regarding claim 5, **Dominguez et al.** further teaches wherein the collected public data is industry specific (col. 5, lines 36-46).

Regarding claim 6, **Dominguez et al.** further teaches wherein the collected user data is facility specific (col. 17, lines 12-15).

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Regarding claim 7, **Dominguez et al.** further teaches wherein the collected user data is equipment specific (col. 5, 36-43).

Regarding claim 8, **Dominguez et al.** further teaches wherein the collected user data is location specific (col. 17, lines 12-15).

Regarding claim 11, **Dominguez et al.** teaches wherein there is further included a mathematical database and wherein data in the collected public data and in the collected user data is imported into the mathematical database for calculating compliance data in the generation of a report (col. 24, lines 41-65).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Singer et al.** (U.S. Patent 6,557,009 B1).

Regarding claim 4, **Dominguez et al.** does not explicitly teach the step of electronically submitting the generated report to a relevant agency.

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Singer et al., however, teaches the step of electronically submitting the generated report to a relevant agency (col. 1, lines 13-22 and abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to allow electronically submitting of compliance reports to a relevant agency because doing so would increased efficiency as a result of reduced administrative time and costs, as well as increased data accuracy through on-line updating (col. 3, lines 57-65).

Regarding claim 23, **Singer et al.** further teaches wherein the mathematical database includes the primary calculation formulas for calculating emissions fees (col. 8, lines 22-30).

8. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Sziklai et al.** (U.S. Patent 6,341,287 B1)

Regarding claim 9, **Dominguez et al.** does not explicitly teach the step of creating a library of available data from the collected public data and non-confidential portions of the collected user data.

Sziklai et al., however, teaches posting regulatory changes for reference in different media, including paper, microfiche and electronic media (col. 10, lines 15-33).

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It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have a central repository of regulated information in order to facilitate accessing information and enhancing the process of preparing and submitting of compliance data to related agency.

Regarding claim 10, **Dominguez et al.** does not explicitly teach the steps of linking the public data to on-line databases and importing data from said databases into the collected public data.

Sziklai et al., however, teaches posting regulatory changes for reference in different media, including paper, microfiche and electronic media (col. 10, lines 15-33).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have a central repository of regulated information in order to facilitate accessing information and enhancing the process of preparing and submitting of compliance data to related agency.

9. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Baker** (U.S. Patent 4,553,983).

Regarding claim 12, **Dominguez et al.** does not explicitly teach wherein the mathematical database is an air module database for calculating hydrocarbon emissions from a crude oil storage tanks.

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Baker, however, teaches a step of calculating hydrocarbon emissions from a crude oil storage tanks (col. 5, line 61 – col. 6, line 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ a mathematical database that contains the formulas for calculating hydrocarbon emissions from a crude oil storage tanks as doing so would facilitate access and retrieval of formulas to calculate hydrocarbon emissions from a crude oil storage tanks and other emissions which required by the agency.

Regarding claim 13, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from storage tanks.

Baker, however, teaches a step of calculating hydrocarbon emissions from a crude oil storage tanks (col. 5, line 61 – col. 6, line 10).

10. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) in view of **Baker** (U.S. Patent 4,553,983) as applied to claims 12-13 above and further in view of **Yamafuji et al.** (U.S. Patent 6,227,177 B1)

Regarding claim 14, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from internal combustion engines.

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Yamafuji et al., however, teaches a step of calculating hydrocarbon emissions from internal combustion engines (col. 3, line 25 – col. 4, line 30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for hydrocarbon emissions from internal combustion engines in order to satisfy the requirement of the agency.

Regarding claim 15, **Dominguez et al.** further teaches wherein the primary formula is repeated for each of the following pollutants: NO_x, CO, SO₂, PA or PM₁₀, VOC_{NM} (col. 17, lines 12-19).

11. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) in view of **Baker** (U.S. Patent 4,553,983) as applied to claims 12-13 above and further in view of **Hemler, Jr. et al.** (U.S. Patent 4,198,287).

Regarding claim 16, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from external combustion engines.

Hemler, Jr. et al., however, teaches a step of calculating hydrocarbon emissions from external combustion engines (col. 8, lines 7 – col. 9, line 16).

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It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for hydrocarbon emissions from external combustion engines in order to satisfy the requirement of the agency.

Regarding claim 17, **Dominguez et al.** further teaches wherein the primary formula is repeated for each of the following pollutants: NO_x, CO, SO₂, PA or PM₁₀, VOC_{NM} (col. 17, lines 12-19).

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) as applied to claims 1-3, 5-8, and 11 above and in view of **Rabe** (U.S. Patent 6,234,390 B1).

Regarding claim 23, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating emission fees.

Rabe, however, teaches acquiring and/or paying a fee for exhaust pollutants and a motor vehicle with an exhaust pollutant. (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for emission fees for exhaust pollutants in order to satisfy the requirement of the agency.

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13. Claims 18, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dominguez et al.** (U.S. Patent 5,668,735) and in view of EPA Document AP-42 and standard engineering/industry calculations according to Applicant submission under 37 CFR 1.105.

Regarding claim 18, **Dominguez** teaches a method for collecting, assimilating, and utilizing data from a variety of sources for determining the regulatory requirements and for generating the related compliance reports for an industry, the method comprising the steps of:

- a). collecting external data required for compliance requirements of a compliance model (col. 2, lines 25-38; col. 22, lines 22-33);
- b). collecting data from a user (col. 23, lines 16-19);
- c). assimilating the external data and the user data in an air module mathematical database used for calculating emissions (col. 23, lines 45-55);
- d). automatically generating a report unique to the user data containing required compliance information (col. 23, lines 19-24).

Dominguez does not explicitly teaches automatically generating a report unique to the user data containing required compliance information from a crude oil storage tank so as to determine compliance by the user, wherein the air module mathematical database includes the following primary calculation formulas for calculating emissions for *valves, flanges piping, and compressor seals*;

However, Applicant submission under 37 CFR 1.105 indicates that the emissions formula for hydrocarbon emissions from storage tanks can be found in Chapter 7, Section 7.1 of the EPA Document AP-42.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the provided EPA emissions formulas to calculate hydrocarbon emissions from storage tanks in order to submit the emissions report to the EPA in accordance with EPA requirements.

Regarding claim 21, **Dominguez** teaches a method for collecting, assimilating, and utilizing data from a variety of sources for determining the regulatory requirements and for generating the related compliance reports for an industry, the method comprising the steps of:

- a). collecting external data required for compliance requirements of a compliance model (col. 2, lines 25-38; col. 22, lines 22-33);
- b). collecting data from a user (col. 23, lines 16-19);
- c). assimilating the external data and the user data in an air module mathematical database used for calculating emissions (col. 23, lines 45-55);
- d). automatically generating a report unique to the user data containing required compliance information (col. 23, lines 19-24).

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Dominguez does not explicitly teach calculating flash emissions caused by the transfer of higher pressure liquids from a process vessel to a storage tank of less pressure.

However, Applicant submission under 37 CFR 1.105 indicates that the calculation of flash emissions caused by the transfer of higher pressure liquids from a process vessel to a storage tank of less pressure by utilizing one of the following:

- 1). standard petroleum engineering calculation (i.e., Vaquez-Beggs Gas Oil Ratio and Black Oil GOR 2);
- 2). Standard testing of samples and gas oil ratio calculation from gas evolved during this test; or
- 3). API-E&P Calculation routine using industry stand software.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the above standard emissions formulas to calculate flash emissions caused by the transfer of higher pressure liquids from a process vessel to a storage tank of less pressure in order to submit the emissions report to the EPA in accordance with EPA requirements.

Regarding claim 22, **Dominguez** teaches a method for collecting, assimilating, and utilizing data from a variety of sources for determining the regulatory requirements and for generating the related compliance reports for an industry, the method comprising the steps of:

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- a). collecting external data required for compliance requirements of a compliance model (col. 2, lines 25-38; col. 22, lines 22-33);
- b). collecting data from a user (col. 23, lines 16-19);
- c). assimilating the external data and the user data in an air module mathematical database used for calculating emissions (col. 23, lines 45-55);
- d). automatically generating a report unique to the user data containing required compliance information (col. 23, lines 19-24).

Dominguez does not explicitly teach calculation of loading loss emission.

However, Applicant submission under 37 CFR 1.105 indicates that the emissions formula for loading loss emissions can be found in Chapter 5, Section 5.2 of the EPA Document AP-42.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the provided EPA emissions formulas to calculate hydrocarbon emissions from storage tanks in order to submit the emissions report to the EPA in accordance with EPA requirements.

Response to Argument

14. Applicant's arguments filed 27 February 2004 have been fully considered but they are not persuasive.

Applicant argues that Dominguez's external data is not even closely similar to the external data referred to in Applicant's resent invention. In response to the preceding

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arguments, Examiner respectfully submits that Dominguez teaches automatically monitoring and reporting the exact concentrations of specific chemicals contained on one or more air streams, such as the inlet and outlet airstreams of a carbon bed (col. 2, lines 25-30). Applicant's invention relates to a method of collecting and assimilating data from a variety of sources for determining the regulatory requirements and generating compliance report. Dominguez teaches collects the concentrations of specific chemicals contained in one ore more air streams such as the inlet and outlet air streams of a carbon bed is equivalent to Applicant's external data as Applicant has the air module database for calculating hydrocarbon emissions for various substances. Thus, the prior art teaches external data as claimed.

Applicant further argues that Dominguez makes no mention of any public data being used as external data. Examiner respectfully submits that Dominguez teaches the automatic sample mode logic routine, when called, it opens the sample line 1 value and then starts the sample number 1. The Automatic Sample Mode Logic Routine then sends the command Sample File Name to the EZChrom computer which commands the gas chromatograph currently in use to take a sample. The computer analyzes the sample data and returns the Standard External and Peak Area reports. The report data is the put into the results database for more comparison and analysis. Thus, the fact that Dominguez's External data report being stored in the database and available for access reads on the applicant's limitation as claimed.

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Applicant further argues that Dominguez does not gather the latest up-to-date government compliance. Examiner respectfully submits that Dominguez monitors and reports discharge of emissions to be submitted to the EPA. Therefore, it is inherent that the prior art must have knowledge of the most up-to-date EPA requirements in order to submit emission reports and be accepted by the EPA.

Applicant further argues that Dominguez does not teach facility/location specific which refers to a plant or operating site. Examiner respectfully submits that Dominguez may not teach a specific facility, however, the prior art teaches the structure for monitoring and reporting compound emitted by certain industry users which reads on the claimed limitation.

Applicant further argues that Dominguez does not state that different composition gasses would be need depending on the equipment type. Examiner respectfully submits that one of the ordinary skilled in the art would be able to determine the different composition gasses associated with the equipment type. Additionally, the EPA would dictate the required emissions to be submitted in order to be in compliance with the EPA regulations.

Applicant further argues that there is no comparison occurring such as in the present invention. Examiner respectfully submits that Applicant's argument is irrelevant as claim 11 does not contain any comparison step.

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Applicant further argues that Singer does teach the electronic submittal of reports to a relevant agency for compliance. However, these reports are manually inputted and are not automatically generated as in the present invention. Examiner respectfully submits that Singer teaches proactive environmental compliance management, regulator to regulated communication and timely submittal review through automated electronic messaging (col. 2, lines 33-36) because electronically submitting of compliance reports to a relevant agency would increase efficiency and increase data accuracy through on-line updating (col. 3, lines 57-65).

Applicant further argues that Sziklai teaches the step of creating a library of available data from the collected public data, but does not teach the step of creating a library of available data from non-confidential portions of the collected user data. Examiner respectfully submits that Sziklai teaches non-confidential portions of the collected user data as non-regulatory requirements for business activities at an industrial and commercial facility (abstract).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

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Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, in claims 12 and 13

Dominguez et al. does not explicitly teach wherein the mathematical database is an air module database for calculating hydrocarbon emissions from a crude oil storage tanks.

Baker, however, teaches a step of calculating hydrocarbon emissions from a crude oil storage tanks (col. 5, line 61 – col. 6, line 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of the cited references because **Baker's** teaching would have allowed **Dominguez's** to facilitate access and retrieval of formulas to calculate hydrocarbon emissions from a crude oil storage tanks and other emissions which required by the agency.

In claims 14-15, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from internal combustion engines.

Yamafuji et al., however, teaches a step of calculating hydrocarbon emissions from internal combustion engines (col. 3, line 25 – col. 4, line 30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for hydrocarbon emissions from internal combustion engines in order to satisfy the requirement of the agency.

In claims 16-17, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating hydrocarbon emissions from external combustion engines.

Hemler, Jr. et al., however, teaches a step of calculating hydrocarbon emissions from external combustion engines (col. 8, lines 7 – col. 9, line 16).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for hydrocarbon emissions from external combustion engines in order to satisfy the requirement of the agency.

In claim 23, **Dominguez et al.** does not explicitly teach wherein the mathematical database includes the primary calculation formulas for calculating emission fees.

Rabe, however, teaches acquiring and/or paying a fee for exhaust pollutants and a motor vehicle with an exhaust pollutant. (abstract).

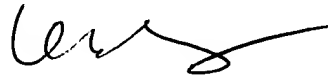
It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the calculation for emission fees for exhaust pollutants in order to satisfy the requirement of the agency.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leslie Wong
Patent Examiner
Art Unit 2167

LW
March 18, 2005